

WHAT IS CLAIMED IS:

1. A data recording and reproduction apparatus receiving, and recording and/or reproducing program data including video data and/or audio data, comprising:
an input portion receiving an instruction input by a user;
a recording portion recording program data;
5 a reproduction portion reproducing program data recorded in said recording portion;

a region management portion managing said recording portion by dividing said recording portion into a temporary storage region provided in a form of a ring buffer to temporarily record said program data, and a long term storage region recording said
10 program data for a long period of time; and

a control portion causing said recording portion and said reproduction portion to at least perform time shift playback to record program data to said temporary storage region and simultaneously reproduce the program data, when said recording portion and said reproduction portion are performing said time shift playback and said input portion
15 has received an instruction to record program data for a long period of time said region management portion effecting management to alter said temporary storage region at a region containing a portion having said program data being reproduced through a portion recording said program data into said long term storage region.

2. The apparatus of claim 1, wherein said region management portion effects management to alter said long term storage region into said temporary storage region by a region having a size equal to a portion of said temporary storage region having been altered into said long term storage region.

3. The apparatus of claim 2, wherein in effecting management to alter said long term storage region into said temporary storage region when said temporary

storage region has a portion altered into said long term storage region said region
management portion preferentially alters the temporary storage region at the portion
5 having been altered into said long term storage region into said temporary storage
region.

4. The apparatus of claim 1, wherein when said region management portion
alters said long term storage region into said temporary storage region more than once
said region management portion alters into said temporary storage region a region of
said long term storage region adjacent to a region having been altered into said
5 temporary storage region.

5. The apparatus of claim 1, wherein said region management portion effects
an exchanging process to alter said long term storage region having been altered into
said temporary storage region back into said long term storage region, and alter said
temporary storage region having been altered into said long term storage region back
5 into said long term storage region.

6. The apparatus of claim 1, wherein said region management portion is
driven by information input to said input portion to determine in size a region managed
in said storage portion as said temporary storage region.

7. A method of recording and reproducing data, performed in a data
recording and reproduction apparatus to receive, and record and/or reproduce program
data including video data and/or audio data, comprising the steps of:
receiving an instruction input by a user;
5 recording program data;
reproducing said program data recorded;
managing a region recording said program data by dividing said region into a

temporary storage region provided in a form of a ring buffer to temporarily store said program data and a long term storage region storing said program data for a long period of time;

effecting time shift playback to record program data to said temporary storage region and simultaneously reproduce said program data; and

when said time shift playback is being effected and an instruction has been received to record said program data for a long period of time, effecting management to alter said temporary storage region at a portion having said program data being reproduced through a portion recording said program data into said long term storage region.

8. The method of claim 7, wherein the step of effecting management effects management to alter said long term storage region into said temporary storage region by a region having a size equal to a portion of said temporary storage region having been altered into said long term storage region.

9. The method of claim 8, wherein in effecting management to alter said long term storage region into said temporary storage region when said temporary storage region has a portion altered into said long term storage region the portion of the temporary storage region having been altered into said long term storage region is preferentially altered into said temporary storage region.

10. The method of claim 7, wherein when said long term storage region is to be altered into said temporary storage region more than once a region of said long term storage region adjacent to a region having been altered into said temporary storage region is altered into said temporary storage region.

11. The method of claim 7, further comprising the step of altering said long

term storage region having been altered into said temporary storage region back into said long term storage region, and said temporary storage region having been altered into said long term storage region back into said long term storage region.

12. The method of claim 7, driven by information input by a user to determine in size a region managed as said temporary storage region.